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Serial No. 09/884,311; Attorney Docket No. AUS920010589US1

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#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

AUG 2 9 2005

In re application of: Adler et al.

Serial No.: 09/884,311

Filed: June 19, 2001

For: Using an Object Model to Improve Handling of Personally Identifiable Information

50170
PATENT TRADEMARK OFFICE

Group Art Unit: 2134

Examiner: Ho, Thomas M.

Attorney Docket No.: AUS920010589US1

Certificate of Transmission Under 37 C.F.R. 5 1.8(a)

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¦ By:

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Appellants' Brief (37 C.F.R. § 41.37)

A fee of \$500.00 is required for filing an Appellants' Brief. Please charge this fee to IBM Corporation Deposit Account No. 09-0447. No additional fees are believed to be necessary. If, however, any additional fees are required, I authorize the Commissioner to charge these fees which may be required to IBM Corporation Deposit Account No. 09-0447. No extension of time is believed to be necessary. If, however, an extension of time is required, the extension is requested, and I authorize the Commissioner to charge any fees for this extension to IBM Corporation Deposit Account No. 09-0447.

Respectfully submitted,

Stephen J. Weider, Jr.

Registration No. 41,534

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AUG 2 9 2005 PATENT

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¦By:

Rebecca Clayton

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

ATTENTION: Board of Patent Appeals and Interferences

#### **APPELLANTS' BRIEF (37 C.F.R. § 41.37)**

This Appeal Brief is in furtherance of the Notice of Appeal filed June 30, 2005 (37 C.F.R. § 41.31).

The fees required under § 41.20(b)(2), and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying Transmittal of Appeal Brief.

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(Appellants' Brief Page 1 of 25) Adler et al. - 09/884,311

#### I. Real Party in Interest

The real party in interest in this appeal is the following party: International Business Machines Corporation.

# II. Related Appeals and Interferences

With respect to other appeals and interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in the pending appeal, there are no such appeals or interferences.

# III. Status of Claims

The status of the claims involved in this proceeding is as follows:

1. Claims canceled: NONE

2. Claims withdrawing from consideration but not canceled: NONE

3. Claims pending: 1-20

4. Claims allowed: NONE

5. Claims rejected: 1-20

The claims on appeal are: claims 1-20.

# IV. Status of Amendments

No amendments to the application were filed subsequent to mailing of the Final Office Action.

#### V. Summary of Claimed Subject Matter

The present invention provides a mechanism for handling personally identifiable information. The present invention seeks to provide controls over how personally identifiable information provided to one party may be distributed by that party to other parties. The mechanism of the present invention includes providing a first set of object classes (e.g., 601, 602, 605 in Figure 6; 701, 703, 702 in Figure 7) representing active entities (e.g., data subject 301, data user 303, data user 305 in Figure 3; page 10, line 28 to page 11, line 1) in an informationhandling process, wherein a limited number of privacy-related actions represent operations performed on data (page 11, lines 14-18). The mechanism of the present invention further includes providing a second set of object classes (e.g., 706 and 707 in Figure 7) representing data and rules in the information-handling process (e.g., 304 in Figure 3; page 10, lines 20-23), wherein at least one object class has the rules associated with the data, and wherein the data represents the personally identifiable information (e.g., 705 in Figure 7). The mechanism of the present invention also includes processing transactions involving the personally identifiable information, using the first and second set of object classes, so as to enforce a privacy policy (page 11, lines 2-4), associated with the personally identifiable information and defined by the rules (page 11, lines 6 and 13-14), against one or more active entities represented by the first set of object classes (page 11, lines 6-12).

The present invention further provides a mechanism for improving the handling of personally identifiable information (see page 10, lines 3-15). This mechanism involves performing an initial assessment of an information-handling process (e.g., 201 in Figure 2), constructing a model of the information-handling process (e.g., 203 in Figure 2), based on the initial assessment, and providing output (e.g., "feedback" in Figure 2) based on the initial assessment and constructing of the model, that identifies at least one way in which the personally identifiable information could be better handled (e.g., 205 in Figure 2). The constructing of the model may include representing entities, data, and rules in the information-handling process by using a limited number of object classes, representing operations performed on data by using a limited number of privacy-related actions, and representing transactions by using the limited number of object classes and the limited number of privacy-related actions (see Figure 8 and description on page 26, line 7 to page 27, line 26).

#### VI. Grounds of Rejection to be Reviewed on Appeal

Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Martin, "Principles of Object Oriented Analysis and Design," Prentice Hall, 1993.

#### VII, Argument

The Office Action rejects claims 1-20 under 35 U.S.C. 103(a) as being allegedly anticipated by Martin, "Principles of Object Oriented Analysis and Design," Prentice Hall, 1993. This rejection is respectfully traversed.

#### A. Independent Claims 1, 12 and 15

Claim 1 reads as follows:

1. A method, in a data processing system, for handling personally identifiable information, said method comprising:

providing, in a computer, a first set of object classes <u>representing active</u> entities in an information-handling process, wherein a limited number of privacy-related actions represent operations performed on data;

providing, in said computer, a second set of object classes representing data and rules in said information-handling process, wherein at least one object class has said rules associated with said data, and wherein said data represents said personally identifiable information; and

personally identifiable information, using said computer and said first and second set of object classes, so as to enforce a privacy policy, associated with the personally identifiable information and defined by said rules, against one or more active entities represented by said first set of object classes.

(emphasis added)

Martin does not teach or suggest every element of the claimed invention. Specifically, Martin does not teach or suggest a first set of object classes representing active entities in an information handling process, a second set of object classes representing data and rules in an information handling process, or processing transactions involving personally identifiable information so as to enforce a privacy policy associated with the personally identifiable

information and defined by rules of the second set of object classes, against one or more active entities represented by the first set of object classes, as recited in claim 1.

Martin is a textbook that is concerned with describing the basic building blocks of objectoriented modeling. As such, Martin generally teaches objects, classes, rules, and the like.

However, Martin does not provide any teaching or suggestion regarding the specific arrangement
of objects, classes and rules, or the processing of transactions using such arrangement of objects,
classes and rules so as to enforce a privacy policy, associated with personally identifiable
information and defined by rules in a set of object classes, against one or more active entities
represented by a first set of object classes. Nowhere in Martin is there any teaching or suggestion
regarding a first set of object classes representing active entities in an information handling
process. Nowhere in Martin is there any teaching or suggestion regarding a second set of object
classes representing data and rules in an information handling process. Nowhere in Martin is
there any teaching or suggestion to process transactions involving personally identifiable
information so as to enforce a privacy policy associated with the personally identifiable
information and defined by rules o the second set of object classes, against one or more active
entities represented by the first set of object classes.

The Final Office Action alleges that Martin teaches the feature of "providing, in a computer, a first set of object classes representing active entities in an information-handling process, wherein a limited number of privacy-related actions represent operations performed on data" at page 19 because, in the Examiner's opinion, the objects are active entities themselves and that privacy related actions are the operations to read and manipulate data of the object (see Final Office Action, page 4). In the Examiner's "Response to Amendments" section of the Final Office Action (page 2 of the Final Office Action), the Examiner explains that "...it is the Examiner's position that an object as disclosed by Martin, in the field of Object oriented program, inherently discloses an active entity."

Appellants respectfully submit that the Examiner must interpret the claims in light of the specification and that the specification is a dictionary for the terms used in the claims. Claim 1 uses the term "active entity" and thus, it is the Examiner's duty when interpreting the claim to look to the specification to determine what the term "active entity" encompasses. According to the present specification, an active entity is a human being or legal entity (see page 15, lines 13-15). The specification does not state that an "active entity" is just any object. To the contrary,

(Appellants' Brief Page 5 of 25) Adler et al. – 09/884,311 the specification clearly states that an active entity is a human being or legal entity.

Claim 1 states that the first set of object classes represent active entities "in an information-handling process." Thus, using the definition of active entity found in the specification, this feature is to be interpreted as a first set of object classes representing human beings or legal entities in an information-handling process. Therefore, the first set of object classes do not refer to any object that is involved in information handling, as the Examiner alleges. To the contrary, the first set of object classes specifically represent human beings or legal entities, i.e. active entities, in an information-handling process. An example of such human beings or legal entities is given on page 10, line 28 to page 11, line 1 of the present specification where it states that the "main actors in EPA are a data subject 301 (i.e. the person who is described by the PII) and one or more data users, 303 or 304 (e.g. different organizations or individuals)." Thus, the general objects described in Martin do not teach or suggest using a first set of object classes to represent human beings or legal entities, i.e. active entities, in an information-handling process.

In addition to the above, Martin does not teach or suggest a second set of object classes representing data and rules in said information-handling process, wherein at least one object class has said rules associated with said data, and wherein said data represents said personally identifiable information. The Final Office Action alleges that this feature is taught by Martin at page 144 in the section entitled "Object Structure Analysis/Object Behavior Analysis" because this section allegedly states that objects are capable of representing data and rules in their interrelationships with other objects. While it may be true that objects are capable of representing data and rules, there is nothing in such a general teaching that teaches or suggests to use object classes to represent personally identifiable information in association with rules, as recited in claim 1. Nowhere in Martin is there any mention of using objects to represent personally identifiable information handling process. Moreover, there is no teaching or suggestion in Martin to use a first set of object classes representing active entities in an information handling process and use a second set of object classes representing personally identifiable information and rules in an information handling process.

Further to the above, Martin does not teach or suggest processing transactions involving personally identifiable information using the first set of object classes and the second set of

(Appellanta' Brief Page 6 of 25) Adler et al. - 09/884,311 object classes so as to enforce a privacy policy, associated with the personally identifiable information and defined by the rules, against one or more active entities represented by the first set of object classes. The Final Office Action alleges that Martin teaches processing transactions involving personally identifiable information using a first set of object classes and a second set of object classes in the diagrams on pages 146-147 of Martin. Specifically, the Final Office Action alleges that the identity of the customers, their salaries, employee type, etc. are personally identifiable information. While these may be examples of personally identifiable information, there is no teaching or suggestion in the diagrams on pages 146-147 to enforce a privacy policy associated with personally identifiable information, represented in a second set of object classes, against one or more active entities, i.e. human beings or legal entities, represented by a first set of object classes. The diagrams shown on pages 146-147 of Martin have nothing to do with a privacy policy, let alone a privacy policy that is defined by rules in a second set of object classes, associated with personally identifiable information in the second set of object classes, which is applied against a first set of object classes that represent human beings or legal entities in an information handling process.

The Final Office Action admits that Martin does not teach a first and second set of object classes that enforce a privacy policy. The Final Office Action states that because Martin allegedly teaches the implementation of rules through "active entities," which the Examiner interprets as being any object, and because the privacy policy of the claimed invention is implemented using rules, that somehow this means that the features of claim 1 are made obvious. A plethora of things may be modeled using rules. In fact, Martin provides examples of rules for establishing different types of pre-conditions and post-conditions, although it should be noted that in none of the examples provided in Martin is there any example of the rules being used to implement a privacy policy. However, just teaching rules does not teach or suggest to use such rules in implementing a privacy policy or to do so in the particular manner recited in claim 1. As with the rejection of all of the previous features discussed above, the Examiner's stance with regard to this feature is to take a very general teaching, i.e. a teaching of "rules", and use it to reject a very specific feature without even a single suggestion in the reference to apply such a general teaching to the specific feature of the claim. Nowhere in Martin is there any teaching or suggestion to use rules to implement a privacy policy, let alone to implement a privacy policy as rules in associated with personally identifiable information in a second set of object classes such

> (Appellants' Brief Page 7 of 25) Adler et al. - 09/884,311

that the privacy policy is applied against active entities represented by a first set of object classes.

The basic fallacy in the Examiner's position is that the Examiner is using a general textbook teaching of basic building blocks of object oriented environments and concluding that these general teachings necessarily obviate all possible uses and arrangements of these building blocks. Appellants are not claiming objects, rules, classes, or any of the other basic building blocks of an object oriented environment in themselves. To the contrary, Appellants are claiming a very specific arrangement of object classes and a mechanism for using this specific arrangement of object classes to perform information handling involving personally identifiable information.

Basically, the Examiner's position is completely based on hindsight reconstruction using Appellants' own disclosure as a guide. The Examiner's rejection amounts to the Examiner believing that the basic building blocks described in Martin could be combined to arrive at Appellants' claimed invention and thus, the claimed invention must be obvious. The Examiner completely disregards the requirement that there be a teaching or suggestion to make the particular arrangement of basic building blocks set forth in Martin that would arrive at the invention as recited in Appellants' claims. There simply is no teaching or suggestion in the general textbook of Martin to apply objects, rules, classes, etc. to information handling in the particular manner set forth in claim 1, as discussed at length above.

Independent claims 12 and 15 provide system and computer-usable medium claims having features that are similar to those discussed above with regard to claim 1. Therefore, these claims are distinguished over Martin for similar reasons as set forth above with regard to claim 1.

In view of the above, Appellants respectfully submit that Martin does not teach or suggest the features recited in claims 1, 12 and 15. At least by virtue of their dependency on claim 4, Martin does not teach or suggest the features of dependent claims 2-3, 13-14 and 16-20.

#### B. Independent Claim 4

With regard to independent claim 4, recites a particular method in which an initial assessment of an information-handling process is performed, a model of the information-handling process is constructed based on the initial assessment, and output is provided based on the initial assessment and constructing, that identifies at least one way in which personally

(Appellants' Brief Page 8 of 25) Adler et al. – 09/884,311 identifiable information could be better handled. The Final Office Action alloges that Martin teaches providing output, based on an initial assessment and constructing a model of an information handling process, that identifies at least one way in which personally identifiable information may be better handled simply because Martin teaches the use of CRC cards at pages 187-190.

While Martin mentions the use of CRC cards, which are physical index cards used by programmers to represent classes in an object oriented model, and the desire of programmers to "think like an object," nowhere in Martin is there any teaching or suggestion of a methodology in a data processing system for analyzing an information handling process, constructing a model of the information handling process, or generating an output that identifies at least one way in which personally identifiable information can be better handled by the information handling process, as recited in claim 4. To the contrary, Martin is merely describing, in general, a manual, index card based, technique by which programmers may try to gain some insight into how the classes and objects of an object oriented model may operate. Martin does not teach anything regarding personally identifiable information, handling personally identifiable information, or performing an assessment, constructing a model, or determining an improvement to a personally identifiable information handling process.

Moreover, nowhere in Martin is there any teaching or suggestion regarding representing entities, data, and rules in an information handling process by using a limited number of object classes, representing operations performed on data by using a limited number of privacy-related actions, and representing transactions by using the limited number of object classes and the limited number of privacy-related actions. The Final Office Action alleges that these features are taught by Martin at page 19, 140, 146-147, 156 and 166. Page 19 of Martin merely teaches that "operations" are used to read or manipulate data of an object. Page 19 does not teach anything regarding privacy-related actions or representing transactions using such privacy related actions. Page 140 of Martin merely teaches WHEN-IF-THEN trigger rules. Nowhere on page 140 is there any teaching or suggestion regarding privacy related actions or using privacy related actions along with objects representing entities, data and rules to represent transactions.

Pages 146-147 of Martin have been addressed above with regard to claim 1. These pages of Martin merely provide example diagrams of rules liked to object oriented CASE diagrams. Nowhere in any of the diagrams provided on pages 146-147 is there any teaching or suggestion

(Appellants' Brief Page 9 of 25) Adler et al. - 09/884,311 regarding representing objects performed on data as a limited number of privacy-related actions or using such privacy-related actions along with objects representing entities, data and rules to represent transactions.

Similarly, pages 156 and 166 of Martin do not provide any teaching or suggestion regarding these features. Page 156 of Martin provides an example object-relationship model for students and classes. Again, there is no teaching or suggestion regarding representing objects performed on data as a limited number of privacy-related actions or using such privacy-related actions along with objects representing entities, data and rules to represent transactions. Page 166 of Martin provides an event diagram example which again, has nothing to do with these features of claim 4. As with claim 1 above, while Martin provides teachings regarding some basic building blocks of object oriented environments, Martin does not provide any of the specific features recited in claim 4.

In view of the above, Appellants respectfully submit that Martin does not teach or suggest the features recited in claim 4. At least by virtue of their dependency on claim 4, Martin does not teach or suggest the features of dependent claims 5-11.

# C. <u>Dependent Claims</u>

#### 1. Dependent Claims 3, 14 and 17

The rejection of the dependent claims is respectfully traversed for at least the same reasons set forth above with regard to claims 1, 12 and 15, from which claims 3, 14 and 17 depend, respectively. In addition, Appellants respectfully traverse the Examiner's taking of Official Notice that representing rules as a filled paper form, including both collected data and rules regarding said collected data, was well known in the art at the time of the invention. While electronic forms may have been generally known, associating rules with data collected by such electronic forms in said electronic forms was not know prior to Appellants' claimed invention.

In response to this argument, the Examiner states that examples of an object class representing a filled paper form including both collected data and rules regarding the collected data include contracts signed by parties. In the Examiner's "Response to Amendments" (see Final Office Action, page 3), the Examiner states that a common example of this feature is a legal

(Appellants' Brief Page 10 of 25) Adler et al. - 09/884,311 contract, such as the contract for sale of a house which involves the collection of data and would thereby form the set of rules to apply to the collected data. Appellants respectfully disagree.

While these examples that the Examiner provides are all good examples of paper forms, they are not object classes that represent a filled paper form having collected data and rules regarding the collected data. Nowhere in the example of a paper contract is there any teaching or suggestion to represent such a paper contract as at least one object class having collected data and rules regarding collected data.

Moreover, the Examiner's allegation that the legal contract includes collected data and rules regarding the collected data is simply incorrect. While legal contracts do have information that is filled into them, the content of the contract does not regard the information that is filled in, but rules to be applied to the subject of the contract. For example, inserting the address of the house that is the subject of the sale does not mean that the "rules" in the contract apply to the address information that was entered. To the contract, the rules in the contract apply to the parties involved in the sale. Nowhere in the sale contract is there any rule regarding how the information filled into the contract may be used. Thus, the Examiner's allegation is completely without merit.

Moreover, even if electronic forms having collected data and associated rules were known prior to Appellants' invention, there is no teaching or suggestion to include such a feature in the mechanisms of Martin. As discussed previously, Martin is merely a general textbook describing the basic building blocks of object-oriented models. Martin does not provide any teaching or suggestion of any problem for which electronic forms having collected data and associated rules would be a solution. The only basis for asserting such a combination is a hindsight reconstruction of Appellants' claimed invention using Appellants' own disclosure to provide the suggestion for making the combination. Such a combination, predicated on knowledge of Appellants' claimed invention, is impermissible as a basis for establishing a prima facie case of obviousness.

Furthermore, even if such a combination were possible and there were a suggestion in Martin to include such electronic forms with collected data and associated rules, the result still would not be the invention as recited in claims 3, 14 and 17. As discussed above, Martin does not provide any teachings or suggestions regarding the features of independent claims 1, 12 and 15. The inclusion of an electronic form with collected data and associated rules would not

(Appellants' Brief Page 11 of 25) Adler et al. - 09/884,311 provide for this deficiency in Martin. Thus, the combination still would not result in the invention as recited in claims 3, 14 and 17. In view of the above, Appellants respectfully submit that Martin does not teach or suggest the features recited in dependent claims 3, 14 and 17.

## 2. Dependent Claims 5, 6, 7 and 9

With regard to dependent claim 5, Martin does not teach providing output comprises identifying at least one way in which an information handling process can be improved. The Final Office Action alleges that this feature is taught by Martin at pages 187-190 because Martin teaches using CRC cards to gain a better understanding of how to handle the object model. The use of CRC cards has been addressed above with regard to claim 4. Using CRC cards, which again are physical index cards that a programmer may use as a tool to understand how objects work with each other, does not provide any output that identifies at least one way in which an information handling process can be improved. A human being, using physical cards, does not constitute a data processing system that provides an output. Thus, the whole premise of the Examiner's rejections based on the use of CRC cards is critically flawed. Nowhere in the Martin reference is there any teaching or suggestion to automate CRC cards such that a data processing system uses such CRC cards to generate an output that identifies a way in which an information handling process can be improved. While CRC cards may be a nice tool for programmers to use, it does not obviate the features of claim 5. Thus, in view of the above, Appellants respectfully submit that Martin does not teach or suggest the features of claim 5.

The Examiner uses the same flawed reasoning in rejecting claims 6, 7 and 9. Claim 6 recites that providing output further comprises identifying at least one way to improve compliance with a law or contract. Just as CRC cards do not teach or suggest providing an output that comprises at least one way in which an information handling process can be improved (claim 5), CRC cards do not provide any teaching or suggestion regarding providing an output that identifies a way to improve compliance with a law or contract.

Claims 7 and 9 are rejected "for the same reasons as claim 5." Claim 7 recites enforcing compliance with a law or contract. This feature is not taught or suggested by the use of CRC cards. Claim 9 recites that designing a modification further comprises designing a modification to improve compliance with a law or contract governing an information handling process.

(Appellants' Brief Page 12 of 25) Adler et al. - 09/884,311 Again, using CRC cards does not teach or suggest designing a modification that improves compliance with a law or contract governing an information handling process. Thus, in view of the above, Appellants respectfully submit that Martin does not teach or suggest the features in claims 5, 6, 7 and 9.

# 3. Dependent Claim 8

Regarding claim 8, Martin does not teach or suggest designing a modification to an information handling process based on construction a model and providing output that identifies at least one way in which personally identifiable information could be better handled. The Final Office Action alleges that this feature is taught by Martin because Martin supposedly teaches that "modifications are constantly being designed in the creation of the object oriented model of the system from the creation of the model, to the creation of its design, to the generation of the code" at page 60. All this teaches is that the object oriented model may undergo many modifications. Where does this teach anything regarding devising a modification based on a construction of the model and providing an output that identifies at least one way in which personally identifiable information could be handled? Once again, the Examiner takes a general statement in Martin and alleges that this general statement teaches a very specific feature recited in the claims without any support what-so-ever.

Appellants agree that object oriented models do undergo many modifications during their creation. This is not what Appellants are claiming. Appellants are specifically claiming the designing of a modification to an information handling process based on constructing a model and providing output that identifies at least one way in which personally identifiable information could be better handled. Such a feature is not taught or suggested by merely stating that object models undergo many modifications. Thus, in view of the above, Appellants respectfully submit that Martin does not teach or suggest the features of claim 8.

#### 4. Dependent Claims 18 and 20

Claim 18, which is representative of similar features found in dependent claim 20<sup>1</sup>, reads as follows:

18. The method of claim 1, wherein:

a first active entity represented by a first object class in said first set of object classes is a first data user that requests said personally identifiable information from a data subject that is a second active entity represented by a second object class in said first set of object classes,

said data subject is an active entity that is personally identifiable by said personally identifiable information;

a third active entity represented by a third object class in said first set of object classes is a second data user that requests personally identifiable information from said first data user, and

said rules define if and how said personally identifiable information may be provided, by said first data user, to said second data user.

Thus, in claim 18 there is a data subject that is personally identifiable by the personally identifiable information, a first data user that requests the personally identifiable information from the data subject, a second data user that requests the personally identifiable information from the first data user, and rules that govern if and how the personally identifiable information may be provided by the first data user to the second data user. None of these features are taught or suggested by Martin.

The Final Office Action alleges that these features are taught by Martin in Figure 11.13 and its corresponding description. Specifically, the Final Office Action states that a first active entity is a student represented by a person object that requests personally identifiable information from a data subject, wherein the personally identifiable information is a registration. Conspicuously missing from the Examiner's explanation of how Figure 11.13 supposedly teaches all of the features of claims 18 and 20 is any explanation of where in the figure the second data user is represented. That is because Figure 11.13 has nothing to do with the features

<sup>1</sup> It is noted that the Final Office Action alleges that claim 20 is "substantially similar" to claim 12 and is rejected for the same reasons. Claim 20 is not substantially similar to claim 12 but is similar to claim 18 and is dependent from claim 12. Therefore, Appellants are treating claim 20 in a similar fashion as claim 18 in Appellants' arguments.

of claims 18 and 20 and the Examiner is attempting to force Figure 11.13 to fit the mold of claims 18 and 20 using hindsight.

Nowhere in Figure 11.13 or its corresponding description is there any teaching or suggestion regarding one data user requesting information from another data user about a data subject where rules govern if and how the information may be provided by the first data user to the second data user. The Examiner has pointed to an arbitrary and irrelevant portion of the Martin reference. Figure 11.13 is actually an event diagram illustrating a registration event in which a student registers, a dormitory room is obtained, and the student is invoiced. This has nothing to do with the features of claims 18 and 20.

In view of the above, Appellants respectfully submit that Martin does not teach or suggest the features of dependent claims 18 and 20.

#### 5. Dependent Claim 19

Dependent claim 19 recites transforming, based on the rules, personally identifiable information into a depersonalized format prior to providing the personally identifiable information to the second data user. The Final Office Action alleges that this feature is taught by Martin at page 166. The Final Office Action alleges that the registration information is a depersonalized format, but is specific to a particular student when a student makes the registration. Appellants respectfully disagree.

As set forth in the present specification on page 13, lines 6-9, depersonalized data is personally identifiable information where the link to the data subject is not visible and cannot be established without knowing some additional information. A registration of a student is not depersonalized information. To the contrary, the registration requires that the student be identifiable from the information. Thus, the Examiner's allegations in the Final Office Action are simply incorrect. Once again, the Examiner is randomly selecting portions of the Martin reference and attempting to force them into the mold of the present claims regardless of the fact that they simply do not have anything to do with the present claims. Nowhere in Martin is there any teaching or suggestion to transform personally identifiable information into a depersonalized format prior to providing the personally identifiable information to a second data user. In view

of the above, Appellants respectfully submit that Martin does not teach or suggest the features of dependent claim 19.

#### VIII. Conclusion

In view of the above, Appellants respectfully submit that the features of claims 1-20 are not taught or suggested by the Martin reference. Accordingly, Appellants request that the Board of Patent Appeals and Interferences overturn the rejections set forth in the Final Office Action.

Respectfully submitted,

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ATTORNEY FOR APPELLANTS

# **CLAIMS APPENDIX**

1. A method, in a data processing system, for handling personally identifiable information, said method comprising:

providing, in a computer, a first set of object classes representing active entities in an information-handling process, wherein a limited number of privacy-related actions represent operations performed on data;

providing, in said computer, a second set of object classes representing data and rules in said information-handling process, wherein at least one object class has said rules associated with said data, and wherein said data represents said personally identifiable information; and

processing transactions, in the data processing system, involving said personally identifiable information, using said computer and said first and second set of object classes, so as to enforce a privacy policy, associated with the personally identifiable information and defined by said rules, against one or more active entities represented by said first set of object classes.

- 2. The method of claim 1, wherein said first set of object classes include one or more object classes representing parties, selected from the group consisting of
  - a data user object class,
  - a data subject object class,
  - a guardian object class, and
  - a privacy authority object class.

- 3. The method of claim 1, wherein said at least one object class, having said rules associated with said data, represents a filled paper form, including both collected data and rules regarding said collected data.
- 4. A method, in a data processing system, for improving the handling of personally identifiable information, said method comprising:

performing, in the data processing system, an initial assessment of an information-handling process;

constructing, in said data processing system, a model of said information-handling process, based on said initial assessment; and

providing output, from said data processing system, based on said initial assessment and constructing, that identifies at least one way in which said personally identifiable information could be better handled;

wherein said constructing includes:

representing entities, data, and rules in said information-handling process by using a limited number of object classes;

representing operations performed on data by using a limited number of privacy-related actions; and

representing transactions by using said limited number of object classes and said limited number of privacy-related actions.

5. The method of claim 4, wherein said providing output further comprises identifying at least one way in which said information-handling process could be improved.

- 6. The method of claim 4, wherein said providing output further comprises identifying at least one way to improve compliance with a law or contract.
- 7. The method of claim 4, further comprising enforcing compliance with a law or contract.
- 8. The method of claim 4, further comprising designing a modification to said information-handling process, based on said constructing and providing.
- 9. The method of claim 8, wherein said designing a modification further comprises designing a modification to improve compliance with a law or contract governing said information handling process.
- 10. The method of claim 4, wherein said limited number of object classes includes one or more object classes representing parties selected from the group consisting of
  - a data user object class,
  - a data subject object class,
  - a guardian object class, and
  - a privacy authority object class.
- 11. The method of claim 4, wherein said limited number of object classes include at least one object class wherein rules are associated with data.

12. A system for handling personally identifiable information, said system comprising:

means for providing, in a computer, a first set of object classes representing active entities
in an information-handling process, wherein a limited number of privacy-related actions
represent operations performed on data;

means for providing, in said computer, a second set of object classes representing data and rules in said information-handling process, wherein at least one object class has said rules associated with said data, and wherein said data represents said personally identifiable information; and

means for processing transactions, in a data processing system, involving said personally identifiable information, using said computer and said first and second set of object classes, so as to enforce a privacy policy, associated with the personally identifiable information and defined by said rules, against one or more active entities represented by said first set of object classes.

- 13. The system of claim 12, wherein said first set of object classes include one or more object classes selected from the group consisting of
  - a data user object class,
  - a data subject object class,
  - a guardian object class, and
  - a privacy authority object class.
- 14. The system of claim 12, wherein said at least one object class, having said rules associated with said data, represents a filled paper form, including both collected data and rules regarding said collected data.

15. A computer-usable medium having computer-executable instructions for handling personally identifiable information, said computer executable instructions comprising:

means for providing in a computer a first set of object classes representing active entities in an information-handling process, wherein a limited number of privacy-related actions represent operations performed on data;

means for providing in said computer a second set of object classes representing data and rules in said information-handling process, wherein at least one object class has said rules associated with said data, and wherein said data represents said personally identifiable information; and

means for processing transactions, in a data processing system, involving said personally identifiable information, using said computer and said first and second set of object classes, so as to enforce a privacy policy, associated with the personally identifiable information and defined by said rules, against one or more active entities represented by said first set of object classes.

- 16. The computer-usable medium of claim 15, wherein said first set of object classes include one or more object classes representing parties, selected from the group consisting of
  - a data user object class,
  - a data subject object class,
  - a guardian object class, and
  - a privacy authority object class.

17. The computer-usable medium of claim 15, wherein said at least one object class, having said rules associated with said data, represents a filled paper form, including both collected data and rules regarding said collected data.

## 18. The method of claim 1, wherein:

a first active entity represented by a first object class in said first set of object classes is a first data user that requests said personally identifiable information from a data subject that is a second active entity represented by a second object class in said first set of object classes,

said data subject is an active entity that is personally identifiable by said personally identifiable information;

a third active entity represented by a third object class in said first set of object classes is a second data user that requests personally identifiable information from said first data user, and said rules define if and how said personally identifiable information may be provided, by said first data user, to said second data user.

# 19. The method of claim 18, further comprising:

transforming, based on said rules, said personally identifiable information into a depersonalized format prior to providing said personally identifiable information to the second data user.

#### 20. The system of claim 12, wherein:

a first active entity represented by a first object class in said first set of object classes is a first data user that requests said personally identifiable information from a data subject that is a

second active entity represented by a second object class in said first set of object classes, said data subject is an active entity that is personally identifiable by said personally identifiable information;

a third active entity represented by a third object class in said first set of object classes is a second data user that requests personally identifiable information from said first data user, and said rules define if and how said personally identifiable information may be provided, by said first data user, to said second data user.

#### **EVIDENCE APPENDIX**

NONE

### RELATED PROCEEDINGS APPENDIX

NONE